

REMARKS

Applicants respectfully request entry of the foregoing and reconsideration of the subject matter identified in caption, as amended, pursuant to and consistent with 37 C.F.R. §1.116, and in light of the remarks which follow.

Claims 1-11 are pending in the application.

By the above amendments, Claim 1 is amended by replacing "salts" with --cations-- after the words "oxoisothiocromanium," "sulfonium," and "organometallic." Applicants also amended Claim 1 in the definition of component C so that the claim reads, in part, ". . . reactive diluent selected from the group consisting of a nonorganosilicone organic compound and an organosilicon comprising . . ." Applicants further amended Claim 1 by deleting the word "optionally" so that the claim reads, in part, ". . . at least one CFG as defined above and at least one secondary functional group (SFG) other than a CFG . . ." Applicants also amended Claim 7 by rewriting the claim in independent form and amending the recitation concerning reactive diluent component C so that the component is selected from the group of chemical formulae C₁, C_{1'}, C_{1''}, C_{1'''}, C₂ and C_{2'}. Support for this amendment can be found at least in original Claim 7.

Applicants thank the Examiner for acknowledging that Claim 7 would be allowable if written in independent form to include all of the elements of Claim 1. In view of the foregoing amendments and following remarks, Applicants submit that all pending claims in the application are in condition for allowance.

Applicants also thank the Examiner for the courtesies extended to their representative Martin A. Bruehs during the telephone interviews conducted on September 27 and October 25, 2004. In particular, Applicants thank the Examiner

for indicating that the above amendments and following remarks are sufficient to place the application into condition for allowance.

Turning now to the Official Action, Claims 1-11 stand rejected under 35 U.S.C. §112, second paragraph, as being indefinite. For at least the reasons that follow, withdrawal of the rejection is in order.

With respect to the rejection of Claims 1-11 over the use of the definition provided for component "C," Applicants have amended Claim 1 ,in accordance with the Examiner's suggestions, to obviate the rejection. In particular, Applicants have amended the claim in the definition of component "C" so that the claim reads in part, ". . . reactive diluent selected from the group consisting of a nonorganosilicone organic compound and an organosilicon comprising . . . "

Applicants respectfully request reconsideration and withdrawal of the §112, second paragraph, rejection of Claims 1-11.

With respect to the rejection of the claims for the use of the word "salts", Applicants have amended Claim 1 to obviate the rejection. In particular, Applicants have replaced "salts" with --cations-- as suggested by the Examiner.

For at least the above reasons, Applicants respectfully request reconsideration and withdrawal of the §112, second paragraph, rejections of the claims for use of the term "salt."

Claims 1-11 stand rejected under 35 U.S.C. §103(a) as being unpatentable over FR 2757870 (FR '870) in view of EP 0522703 (EP '703). For at least the reasons that follow, withdrawal of the rejection is in order.

Claim 1, as amended above, recites a process for carrying out impregnation and/or for preparing a coating which gives release and is leaktight employed at the

engine block/cylinder head interface of engines and applied to sheet gaskets,
comprising:

1 employing a silicone composition

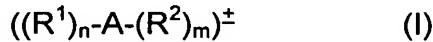
comprising:

A 100 parts by weight of at least one polyorganosiloxane (POS) crosslinkable by the cationic and/or radical route and via crosslinking functional groups (CFGs), these CFGs being identical to or different from one another and being selected from the group consisting of at least one functional unit of heterocyclic nature having one or more electron-donating atoms, at least one ethylenically unsaturated functional unit that is substituted by at least one electron-donating atom which enhances the basicity of the π system, and mixtures thereof;

B from 0.01 to 10 parts by weight of at least one initiator salt (PI) which is a borate of an onium of an element from groups 15 to 17 of the Periodic Classification or of an organometallic complex of an element from groups 4 to 10 of the Periodic Classification,
a cationic entity of said borate being selected from the group consisting

of:

(1) onium cations of formula (I):



in which formula:

A represents an element from groups 15 to 17;

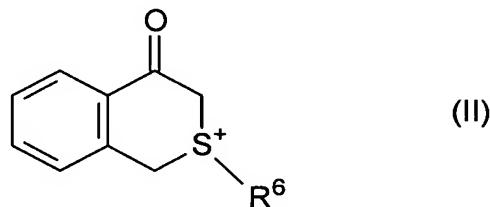
R¹ represents a C₆-C₂₀ carbocyclic or heterocyclic aryl radical;

R² represents R¹ or a linear or branched C₁-C₃₀ alkyl or alkenyl radical; said R¹ and R² radicals optionally being substituted by a C₁-C₂₅ alkoxy, C₁-C₂₅ alkyl, nitro, chloro, bromo, cyano, carboxy, ester or mercapto group,

n is an integer ranging from 1 to v + 1, v being the valency of the element A,

m is an integer ranging from 0 to v - 1, with n + m = v + 1

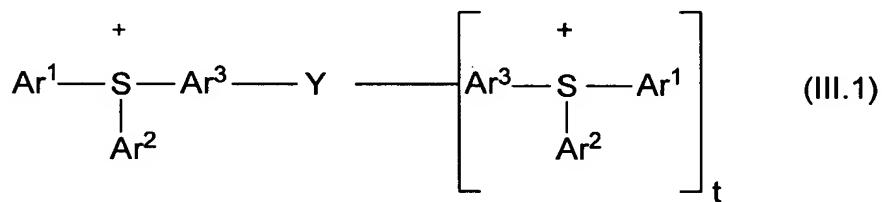
- (2) the oxoisothiocromanium cations having the formula:



where the R⁶ radical represents a linear or branched C₁-C₂₀ alkyl radical;

- (3) sulfonium cations where the cationic entity comprises at least one of:

- 3.1. a polysulfonium species of formula III.1



in which:

the Ar¹ symbols, which can be identical to or different from one another, each represent a monovalent phenyl or naphthyl radical optionally substituted with one or more radicals selected from the group consisting of: a linear or branched C₁-C₁₂ alkyl radical, a linear or branched C₁-C₁₂ alkoxy radical, a halogen atom, an -OH group, a -COOH group, a -COO-alkyl ester group, where the alkyl part is a linear or branched C₁-C₁₂ residue, and a group of formula -Y⁴ Ar², where the Y⁴ and Ar² symbols have the meanings given immediately below,

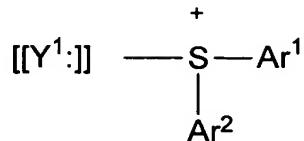
the Ar² symbols, which can be identical to or different from one another or Ar¹ each represent a monovalent phenyl or naphthyl radical optionally substituted with one or more radicals selected from the group consisting of: a linear or branched C₁-C₁₂ alkyl radical, a linear or branched C₁-C₁₂ alkoxy radical, a halogen atom, an -OH group, a -COOH group and a -COO-alkyl ester group, where the alkyl part is a linear or branched C₁-C₁₂ residue,

the Ar³ symbols, which can be identical to or different from one another, each represent a divalent phenylene or naphthylene radical optionally substituted with one or more radicals chosen from: a linear or branched C₁-C₁₂ alkyl radical, a linear or branched C₁-C₁₂ alkoxy radical, a halogen atom, an -OH group, a -COOH group or a -COO-alkyl ester group, where the alkyl part is a linear or branched C₁-C₁₂ residue,

t is an integer equal to 0 or 1,

with the proviso that:

when $t = 0$, the Y symbol is then a Y^1 monovalent radical representing the group of formula Y^1 :

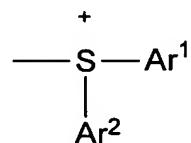


where the Ar^1 and Ar^2 symbols have the meanings given above,

when $t = 1$:

on the one hand, the Y symbol is then a divalent radical having the following meanings Y^2 to Y^4 :

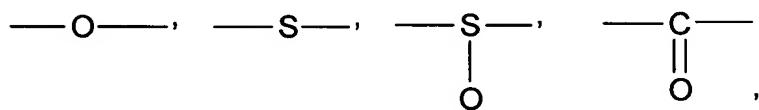
Y^2 : a group of formula:



where the Ar^2 symbol has the meanings given above,

Y^3 : a single valency bond,

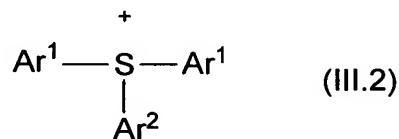
Y^4 : a divalent residue selected from the group consisting of:



a linear or branched C₁-C₁₂ alkylene residue and a residue of formula -Si(CH₃)₂O-,

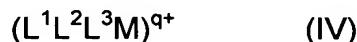
on the other hand, solely in the case where the Y symbol represents Y³ or Y⁴, the Ar¹ and Ar² (terminal) radicals have, in addition to the meanings given above, are optionally connected to one another via the Y', residue comprising Y¹, a single valency bond, or in Y², a divalent residue selected from the group of residues recited in the definition of Y⁴, which is inserted between the carbon atoms, facing each other, situated on each aromatic ring in the ortho position with respect to the carbon atom directly bonded to the S⁺ cation; and

3.2. a monosulfonium species having a single S⁺ cationic center per mole of cation and comprising, in the majority of cases, in species of formula:



in which Ar¹ and Ar² have the meanings given above with respect to the formula (III.1), including the possibility of connecting directly between them only one of the Ar¹ radicals to Ar² according to the way indicated above with respect to the definition of the additional condition in force when t=1 in the formula (II) involving the Y' residue;

(4) organometallic cations of formula (IV):



in which formula:

M represents a metal from group 4 to 10,

L^1 represents 1 ligand bonded to the metal M via π electrons, which ligand is selected from the group consisting of η^3 -alkyl, η^5 -cyclopentadienyl, η^7 -cyclo-heptratrienyl ligands and η^6 -aromatic compounds selected from the group consisting of optionally substituted η^6 -benzene ligands and compounds having from 2 to 4 condensed rings, each ring being capable of contributing to the valency layer of the metal M via 3 to 8 π electrons,

L^2 represents a ligand bonded to the metal M via π electrons, which ligand is selected from the group consisting of η^7 - cycloheptatrienyl ligands and η^6 - aromatic compounds selected from the group consisting of optionally substitute η^6 -benzene ligands and compounds having from 2 to 4 condensed rings, each ring being capable of contributing to the valency layer of the metal M via 6 or 7 π electrons,

L^3 represents from 0 to 3 identical or different ligands bonded to the metal M via σ electrons, which ligand(s) is (are) CO or $N_0_2^+$; the total electronic charge q of the complex to which L^1 , L^2 and L^3 and the ionic charge of the metal M contribute being positive and equal to 1 or 2; an *anionic entity* borate having the formula:



in which formula:

a and b are integers ranging from 0 to 3 for a and from 1 to 4 for b, with $a + b = 4$,

the X symbols represent:

a halogen atom with a = 0 to 3,

an OH functional group with a = 0 to 2,

the R symbols are identical or different and represent:

a phenyl radical substituted by at least one electron-withdrawing group and/or by at least 2 halogen atoms, this being when the cationic entity is an onium of an element from groups 15 to 17,

a phenyl radical substituted by at least one electron-withdrawing element or group, this being when the cationic entity is an organometallic complex of an element from groups 4 to 10,

an aryl radical comprising at least two aromatic nuclei, which is optionally substituted by at least one electron-withdrawing element or group, whatever the cationic entity;

- C 1 to 50 parts by weight of at least one reactive diluent selected from the group consisting of a nonorganosilicon, organic compound and, an organosilicon comprising, in its structure, at least one CFG as defined above and at least one secondary functional group (SFG) other than a CFG but capable of reacting chemically with a CFG;
- D 0 to 10 parts by weight of at least one pigment;
- E 0 to 100 parts by weight of a filler of inorganic nature;
- F 0 to 10 parts by weight of at least one photosensitizer;
- G 0 to 10^{-2} part by weight of a stabilizer comprising at least one stabilizing amine agent,
- H 0 to 5 parts by weight of an adhesion promoter;
- 2 applying this composition to a support ,and

3 crosslinking the applied composition by photochemical and/or thermal activation and/or under an electron beam. (Emphasis added.)

As indicated in the Advisory Action, and as confirmed by the Examiner during the telephone interviews conducted on September 27 and October 25, 2004, Claim 1, as amended above, is patentably distinguished from the above cited art prior references. Specifically, the Advisory Action admits that EP '703 does not teach or suggest reactive diluents that are "crosslinking agents containing at least two functional groups." (See Advisory Action at page 3). In addition, the Advisory Action states, in connection with its acknowledgement of the Declaration under Rule 1.132 of Jean-Marc Frances, that the comparative data presented provides convincing evidence of improvement in solvent resistance and scratch resistance obtained by the compositions employed, and that the claims would be consistent with the comparative data presented if they were revised to indicate that a reactive diluent containing at least two functional groups was being employed to provide crosslinking upon curing. (See Advisory Action at page 4).

In view of these statements and those made during the telephone interviews of September 27 and October 25, Applicants respectfully request reconsideration and withdraw of the § 103(a) rejection over FR '870 in view of EP '703.

From the foregoing, Applicants earnestly solicit further and favorable action in the form of a Notice of Allowance.

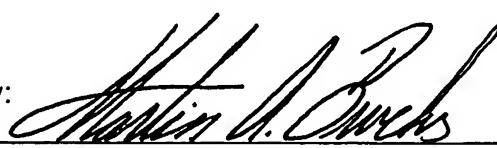
If there are any questions concerning this paper or the application in general, Applicants invite the Examiner to telephone the undersigned at the Examiner's earliest convenience.

Respectfully submitted,

BURNS, DOANE, SWECKER & MATHIS, L.L.P.

Date: October 27, 2004

By:



Martin A. Bruehs
Registration No. 45,635

P.O. Box 1404
Alexandria, Virginia 22313-1404
(703) 836-6620